CLAIMS

1. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor, characterized by using an RE-Ba-O-based compound (RE being one type or two types or more of rare earth elements) and a Ba-Cu-O-based material for liquid phase as a starting material, melting the material for liquid phase, then growing the crystal.

2. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in claim 1, characterized by infiltrating a Ba-Cu-O-based material for liquid phase into a skeletal structure formed by an RE-Ba-O-based compound (RE being one type or two types or more of rare earth elements), then growing the crystal.

3. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in claim 2, characterized in that said skeletal structure is formed by fine particles of an RE-Ba-O-based compound.

4. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in any one of claims 1 to 3, characterized in that said RE-Ba-O-based compound is RE_2BaO_4 (RE being one type or two types or more of rare earth elements).

5. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in any one of claims 1 to 3, characterized in that said RE-Ba-O-based compound is $RE_4Ba_3O_9$ (RE being one type or two types or more of rare earth elements).

6. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in any one of claims 1 to 5, characterized in that an average composition of a composition comprised of said RE-Ba-O-based compound and Ba-Cu-O-based material for liquid phase is

$RE:Ba:Cu=X:Y:Z$ ($1.1 \leq X \leq 2.0$, $2.2 \leq Y \leq 2.6$, $3.1 \leq Z \leq 3.6$).

7. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in any one of claims 1 to 6, characterized in that said RE-Ba-O-based compound and/or Ba-Cu-O-based material for liquid phase contains

platinum (Pt) or CeO_2 in an amount of not more than 2 mass%.

8. A method of fabrication of an RE-Ba-Cu-O-based oxide superconductor as set forth in any one of claims 1 to 7, characterized in that said RE-Ba-O-based compound and/or Ba-Cu-O-based material for liquid phase further includes silver (Ag) in an amount of not more than 30 mass% as a dispersed phase.